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March 18, 1999

**By Hand Delivery**

Magalie Roman Salas, Esq.  
Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

RE: Summary of Oral Ex Parte Presentation in the Public Safety  
Proceeding (WT Docket No. 96-86)

Dear Ms. Salas:

Pursuant to 47 C.F.R. § 1.1206(b)(2), this provides notice that on March 16, 1999, Donald Appleby, Radio Project Manager for the Commonwealth of Pennsylvania (the "Commonwealth"), Norm Coltri of RCC Consultants, Inc., Victor Ramage of RCC Consultants, Inc., along with the undersigned, met with D'wana R. Terry, Chief of the Public Safety & Private Wireless Division and Herb Zeiler, Deputy Chief of the Public Safety & Private Wireless Division regarding issues raised in the above-captioned proceeding.

During this meeting, the Commonwealth expanded on its proposal set forth in its Reply Comments in response to the Third Notice of Proposed Rulemaking that the Commission should require the establishment of a common allocation database which would be used by regional planning committees ("RPCs") to verify the availability of channels for assignment in the 700 MHz band. See Commonwealth Reply Comments filed February 25, 1999 at 9-10. Specifically, the Commonwealth suggested that the Commission adopt a two-component channel assignment protocol which would allow RPCs to measure and verify the availability of specific channels in the 700 MHz band for assignment.

The first component would consist of a common allocation algorithm based on a cellular-like allocation methodology. See Attachment A. Such a methodology would ensure more efficient use of the 700 MHz band spectrum by: (1) allowing an increase in

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users of the spectrum without causing interference; (2) fostering reuse of the spectrum; and (3) encouraging multi-site and multi-channel coverage.

The second component of this protocol would consist of a common allocation database through which RPCs could access accurate information regarding the availability of channels within their own regions as well as any potential conflicts resulting from channel use in adjacent regions. Currently, there is no uniform method by which RPCs track the availability of channels in the 800 MHz band. RPCs typically use their own individual record keeping systems which range from very sophisticated to relatively nonexistent. As a result, RPCs typically do not have access to current and accurate information regarding the status of channel availability in their own regions. Nor do they have access to information regarding channel assignments in nearby regions. Consequently, the 800 MHz process has been plagued by unnecessary conflicts in the assignment of channels to public safety agencies.

These problems are exacerbated by the fact that RPCs typically consist of part-time volunteers who have neither the technical expertise nor resources to manage the spectrum effectively and resolve assignment conflicts quickly. As a result, many public safety agencies, including those in Pennsylvania, have faced significant delays in the assignment of channels needed to complete construction of their systems. These problems will undoubtedly occur in the implementation of the 700 MHz public safety band, particularly given the significantly larger amount of spectrum over which RPCs are likely to have jurisdiction.

A common allocation database would help alleviate these problems by ensuring RPCs access to accurate, up-to-date information regarding the availability of channels within their regions. Moreover, such a database would allow RPCs the ability to identify potential interference conflicts in nearby regions, by providing them access to information on channel assignments within those regions. As a result, such a database would: (1) ensure more spectrally efficient channel assignments; (2) foster speedier processing of applications; and (3) reduce the level of funding needed by RPCs to manage the 700 MHz spectrum. Accordingly, the Commonwealth urges the Commission to adopt a channel assignment protocol for the 700 MHz band as discussed in its Reply Comments and in this presentation.

Next, the Commonwealth elaborated on its request that the Commission designate spectrum in the 700 MHz band for vehicular repeater operations. See Attachment B. Specifically, the Commonwealth now recommends that the Commission designate 12 blocks of four contiguous 6.25 kHz channel pairs (totaling 600 kHz) spectrally spread throughout the reserved spectrum of the 700 MHz public safety band for auxiliary services, including vehicular repeater, on-scene telemetry services and other remote, low power operations. The four contiguous 6.25 kHz channels can be conjugated into wide band (up to 20 kHz bandwidth) operations upon a showing of equivalent spectral efficiency. Under this proposal, auxiliary service channels would be available to all licensees on a shared basis and operations on these channels would be

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limited to a maximum effective radiated power of five (5) watts. No specific protection criteria would be established for these channels; however, operations from fixed or temporary fixed locations would be prohibited.

Equipment developed for these auxiliary channels would be designed to operate on a system friendly basis. For example, such equipment would have the capacity to monitor channel occupancy and to automatically seek clear channels. In addition, other possible safeguards would include operation of a frequency hopping spread spectrum protocol.

This proposed allocation would provide sufficient spectrum for vehicular repeater operations, which are a cost-efficient mechanism for provision of portable in-building coverage. In addition, this allocation would accommodate other remote, low power operations such as on-scene person-to-person communications and personnel accountability reporting systems. See Safety Tech Industries Petition for Reconsideration at 1-17. The Commonwealth believes that a specific allocation is necessary in order to ensure that these services are protected from high powered operations within this band. Moreover, such an allocation should be made on a common set of frequencies on a nationwide basis. See Commonwealth Comments filed December 22, 1997 at 15. Accordingly, the Commonwealth urges the Commission to designate a portion of the reserved spectrum for auxiliary services as described above and in the Commonwealth's previous pleadings. Commonwealth Comments filed December 22, 1997 at 13-15; Commonwealth Comments filed January 19, 1999 at 8-9; Commonwealth Comments filed February 25, 1999 at 10-11.

An original and one copy of this notice are being submitted. Should you have any questions regarding this matter, please contact the undersigned.

Respectfully submitted,



Thomas J. Keller



Lisa M. Fowlkes

Attachments

cc: D'wana R. Terry, Esq.  
Mr. Herb Zeiler  
Martin W. Bercovici, Esq. (counsel for Safety Tech Industries)

## **ATTACHMENT A**

# Channel Assignment Protocol

## ◆ Cell Allocation Methodology

- Initial spectrum population
- Fosters reuse of spectrum
- Encourages multi-site / multi-channel coverage

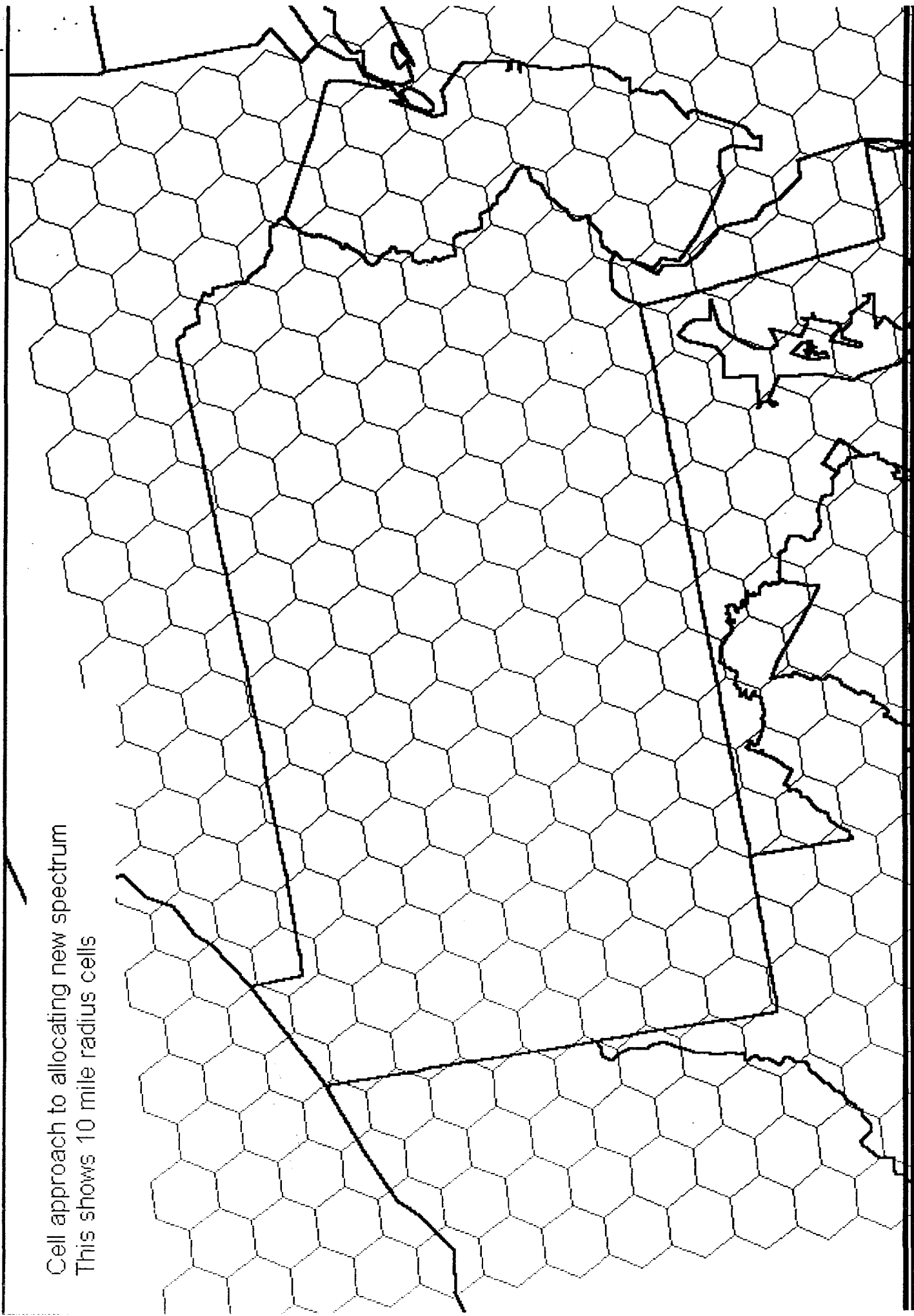
## ◆ Channel Verification by Computation Methods

- Graphical approach for ease of operation
- Current reference to County borders
- Future incorporation to TIA -TSB88
  - Locate channel pools by geographic distance and band
  - Conduct Desired/Undesired contour studies
  - Develop list of “pass” channels
  - Allocate lowest “pass” channels

## ◆ Current Data Problems

- Different record keeping in Regions
  - Inconsistent data elements
-

Cell approach to allocating new spectrum  
This shows 10 mile radius cells



## **ATTACHMENT B**

# Vehicular Repeater System

- ◆ Extends Mobile Coverage to a Portable
    - Large geographic coverage systems
    - In-building coverage
  
  - ◆ Compensates for Portable
    - Lower transmitter power
    - Inefficient antenna system
    - Location, location, location
  
  - ◆ Friendly Operating System
    - Monitors before transmits
    - Jumps to “clear” channel
    - Multi-frequency operation
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